

SEQUENCE LISTING

<110> University of Rochester  
Kool, Eric

<120> CIRCULAR DNA VECTORS FOR SYNTHESIS OF RNA AND DNA

<130> 220.00010142

<150> US 09/569,344

<151> 2000-05-11

<150> US 08/805,631

<151> 1997-02-26

<150> US 08/393,439

<151> 1995-02-23

<150> US 08/047,860

<151> 1993-04-15

<160> 129

<170> PatentIn version 3.1

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| <223> stem-loop multimer which binds HIV-1 gag RNA   |  |    |
| <400> 41   | gggaagaaaa gucuuccucu cucuagggau cucucuccuu cucuuuucuu cgg | 53 |
| <210> 42   |  |    |
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| <223> 53 circle                                      |  |    |
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| <210> 43   |  |    |
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| <212> RNA  |  |    |
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| <223> stem-loop multimer which binds to bcr-abl mRNA |  |    |
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<223> hairpin multimer which binds HIV-1 rev protein

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<212> RNA

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<223> monomeric ribozyme complementary to K28 junction in chronic myeloid leukemia (Philadelphia Chromosome mutation)

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<223> Philadelphia chromosome mRNA

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ctcttcagca aaatatggga gat 83

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<223> catalytic H83 transcription product

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<223> catalytic H83 transcription product

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 agagacgaag ugaucaagag auc 83  
  
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uaguccaguu uuc 73

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TESEET

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<223> sequences of HIV-1 pol gene

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<223> splint

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24

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58

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58

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|       | gactgaggag ttcgtctggt aaagtatggt gctacgactt ctttatttac cacgatgc | 58 |
| <210> | 83  |    |
| <211> | 45  |    |
| <212> | DNA   |    |
| <213> | Artificial Sequence   |    |
| <220> |   |    |
| <223> | circular ssDNA  |    |
| <400> | 83  |    |
|       | tctttcagtt tcgtcctcac ggactcatca gaatggcaac acatt               | 45 |
| <210> | 84  |    |
| <211> | 35  |    |
| <212> | DNA   |    |
| <213> | Artificial Sequence   |    |

<220>

<223> circular ssDNA

<400> 84

gactgaggag ttcgtctgtc tttcagtttc gtcct

35

<210> 85

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> circular ssDNA

<400> 85

cacggactca tcagaatggc aacacatt

28

<210> 86

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> circular ssDNA

<400> 86

gacactggag ttcgtctggt aaagtatggt gctacgactt ctttatttac cacgatgc

58

<210> 87

<211> 45

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<220>

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<400> 87

agaaagtgtt tcgtcctcac ggactcatca gagagcggtc actct

45

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<210> 89  
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<400> 89  
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44

<210> 90

<211> 60

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<213> Artificial sequence

<220>

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<220>

<221> misc\_feature

<222> (11)..(50)

<223> a, g, c, or t

<400> 90  
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60

<210> 91

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> circular ssDNA

43

<400> 91  
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<210> 92

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> circular ssDNA

35

<400> 92  
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<210> 93

<211> 28

<212> DNA

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28

<400> 93  
cacggactca tcagagagcg ttcactct

<210> 94

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

29

<400> 94  
aggtcgacta tggagaaaaa aatcactgg

30

|       |   |    |
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| <210> | 95  |    |
| <211> | 27  |    |
| <212> | DNA   |    |
| <213> | Artificial Sequence   |    |
| <220> |   |    |
| <223> | primer  |    |
| <400> | 95  |    |
|       | ggtaccctaaa aggccatccg tcaggat                                    | 27 |
| <210> | 96  |    |
| <211> | 81  |    |
| <212> | DNA   |    |
| <213> | Artificial Sequence   |    |
| <220> |   |    |
| <223> | primer  |    |
| <400> | 96  |    |
|       | cccaagcttg tcactggaga aagtgtcaga gcgttcgggt tactccaaat ggcacctgca | 60 |
|       | aatggagaaa aaaatcactg g   | 81 |
| <210> | 97  |    |
| <211> | 29  |    |
| <212> | DNA   |    |
| <213> | Artificial Sequence   |    |
| <220> |   |    |
| <223> | primer  |    |
| <400> | 97  |    |
|       | ggggtaccctaa aaaggccatc cgtcaggat                                 | 29 |
| <210> | 98  |    |
| <211> | 22  |    |
| <212> | DNA   |    |

<213> Artificial Sequence

<220>

<223> primer

<400> 98

gtatatccag tgattttttt ct

22

<210> 99

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 99

atgaccatga ttacgcc

17

<210> 100

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 100

agagcgttcg ggttactcca

20

<210> 101

<211> 103

<212> DNA

<213> Artificial Sequence

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<223> single-stranded nanocircle containing 40nt of randomized sequence  
, and 63nt fixed sequence encoding a hammerhead ribozyme

<220>

<221> misc\_feature

<222> (19)..(58)

<223> a, g, c, or t

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<212> DNA

<213> Skipped Sequence

<400> 102

<210> 103

<211> 0

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<213> Skipped Sequence

<400> 103

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<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> E1 motif I

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<210> 105

<211> 40

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| <212> | DNA  |    |
| <213> | Artificial Sequence                                |    |
| <220> |  |    |
| <223> | E38 motif II                                       |    |
| <400> | 105<br>gycacgatct gaatagtcgt tcatcctyag cggtagcgaa | 40 |
| <210> | 106  |    |
| <211> | 0  |    |
| <212> | DNA  |    |
| <213> | Skipped Sequence                                   |    |
| <400> | 106<br>000   | 3  |
| <210> | 107  |    |
| <211> | 0  |    |
| <212> | DNA  |    |
| <213> | Skipped Sequence                                   |    |
| <400> | 107<br>000   | 3  |
| <210> | 108  |    |
| <211> | 40   |    |
| <212> | DNA  |    |
| <213> | Artificial Sequence                                |    |
| <220> |  |    |
| <223> | nucleotide sequence containing E15 motif III       |    |
| <400> | 108<br>gcttaaggat taattgcatg ttattcttta ggagcctcga | 40 |
| <210> | 109  |    |
| <211> | 40   |    |

<212> DNA

<213> Artificial Sequence

<220>

<223> nucleotide sequence containing E15 motif III

<400> 109

gtaaagtatg ttgctacgac ttctttattt accacgatgc

40

<210> 110

<211> 0

<212> DNA

<213> Skipped Sequence

<400> 110

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<210> 111

<211> 40

<212> DNA

<213> Artificial Sequence

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gagcagtggc caactgacgg cttcgaaatg atatgcagcg

40

<210> 112

<211> 40

<212> DNA

<213> Artificial Sequence

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<223> selected nucleotide sequence

<400> 112

tatgacgata ggattagacg tgtgggggta ttttcactac

40

<210> 113  
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gtctcactcg gaggaggagt ctgacaagat gggatgctgc

40

<210> 114  
<211> 40  
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39

<210> 116  
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<400> 116

gtgctattcg tggctatact gttaatgtgt cgcaccattc

40

<210> 117

<211> 40

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<213> Artificial Sequence

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ggccccgttt aggtacaatc acatgtacta gcgttggtgt

40

<210> 118

<211> 40

<212> DNA

<213> Artificial Sequence

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gtaggggtaa tatccttctc gtatgaccgt ggaagacgtc

40

<210> 119

<211> 40

<212> DNA

<213> Artificial Sequence

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<400> 119

ggatgcgtag cgtaaagcgt tcgtatctcg aggtaagctt

40

<210> 120

<211> 40  
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 <223> selected nucleotide sequence  
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 gagccatgga gcatactagt tgaactctag cttctagtcc 40  
  
 <210> 121  
 <211> 103  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> E1  
 <400> 121  
 gactgaggag ttcgtctggc aacgaatcag actctttcgt ttacattgcc cagtttattc 60  
 tttcagtttc gtcctcacgg actcatcaga atggcaacac att 103  
  
 <210> 122  
 <211> 103  
 <212> DNA  
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 <220>  
 <223> E15  
 <400> 122  
 gactgaggag ttcgtctggt aaagtatggt gctacgactt ctttatttac cacgatgctc 60  
 tttcagtttc gtcctcacgg actcatcaga atggcaacac att 103  
  
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 <211> 103  
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<220>

<223> E38

<400> 123

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tttcagtttc gtcctcacgg actcatcaga atggcaacac att 103

<210> 124

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<212> RNA

<213> Artificial Sequence

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Q<223> marA cleavage site

Q<400> 124

Qaagugucaga gcg 13

Q<210> 125

Q<211> 103

Q<212> RNA

Q<213> Artificial Sequence

T<220>

<223> active marA

<400> 125

agagugaacg cucucugaug aguccgugag gacgaaacac uuucugcauc gugguaaaaua 60

aagaagucgu agcaacauac uuuaccagac gaacuccagu guc 103

<210> 126

<211> 103

<212> RNA

<213> Artificial Sequence

<220>

<223> inactive marA

TE526660  
997  
T00ETT

<400> 126  
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aagaagucgu agcaacauac uuuaccagac gaacuccagu guc 103

<210> 127

<211> 63

<212> RNA

<213> Artificial Sequence

<220>

<223> short marA

<400> 127  
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guc 63

<210> 128

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> probe

<400> 128  
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<210> 129

<211> 73

<212> DNA

<213> Artificial Sequence

<220>

<223> DNA template encoding self-processing haripin ribozyme

<400> 129  
ttcctgagaa gtcaaccaga gaaacacacg ttgtggtaca ttacctgga cctccctgta 60  
gtccagtttt cga 73